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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/730,057	03/23/2010	Sebastian HOEROLD	133649.05701	8396

21269 7590 11/25/2016
PEPPER HAMILTON LLP
500 GRANT STREET
SUITE 5000
PITTSBURGH, PA 15219-2507

EXAMINER

LEE, DORIS L

ART UNIT	PAPER NUMBER
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1764

MAIL DATE	DELIVERY MODE
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11/25/2016

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SEBASTIAN HOEROLD, ELKE SCHLOSSER,
WOLFGANG WANZKE, MARC-ANDRE LEBEL,
and KARL DIETER FREITAG

Appeal 2015-005924
Application 12/730,057
Technology Center 1700

Before JEFFREY T. SMITH, KAREN M. HASTINGS, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134(a) of the
Examiner's decision rejecting claims 1–8. We have jurisdiction over the
appeal under 35 U.S.C. § 6(b).

We AFFIRM.

Claim 1 is illustrative of the subject matter on appeal and is reproduced below:

1. A plastic molding composition comprising 40% to 94% by weight polyester elastomer, 5% to 25% by weight phosphinate salt; and 1% to 20% by weight phosphonate component comprised of an oligomeric phosphonate, polyphosphonate or copolyphosphonate.

Appellants request review of the following rejections from the Examiner's Final Action (*see* Appeal Brief, *generally*):

I. Claims 1–8 rejected under 35 U.S.C. § 103(a) as unpatentable over Schmidt (WO 2008/011941 A1, published January 31, 2008), Karayianni et al. (US 2009/0176091 A1, published July 9, 2009) (“Karayianni”), and Freitag (US 2007/0129511 A1, published June 7, 2007).

II. Claims 1–8 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–14 of copending Application No. 12/920,917.

ANALYSIS

Rejection I¹

After review of the respective positions provided by Appellants and the Examiner, we AFFIRM the Examiner's prior art rejection under 35 U.S.C. § 103(a) for the reasons presented by the Examiner and add the following for emphasis.

Independent claim 1 is directed to mixtures of flame retardants for thermoplastic polyester elastomers, where the flame retardants are

¹ Appellants do not argue any claim separate from the other. *See* Appeal Brief, *generally*. Accordingly, we select claim 1 as representative of the subject matter before us on appeal. Claims 2–8 stand and fall with claim 1.

phosphinate salts and phosphonate oligomers, polymers and/or copolymers.
Spec. ¶ 1.

We refer to the Examiner's Non-Final Action for a statement of the rejection. Non-Final Act. 2–4.

Appellants argue that, while Schmidt discloses a thermoplastic composition optionally comprising 0.01 to 10 wt. % of other flame retardants in addition to the a nitrogen-containing flame retardant compound, these other flame retardants are limited to flame retardant synergists identified as inorganic compounds such as talc, a metal oxide, a metal sulphide, or a metal borate. App. Br. 8; Schmidt 13–14. Thus, Appellants argue Schmidt does not add halogen free flame retardants such as the phosphonate components recited in claim 1. App. Br. 8. In addition, Appellants argue that there is no teaching that the inorganic retardants of Schmidt are equivalent to the phosphonate retardant of Freitag. *Id.*

We are unpersuaded by these arguments. As noted by the Examiner, the other flame retardants of Schmidt are not as limited as argued by Appellants. Ans. 3. In fact, Schmidt specifically discloses that the flame retardant thermoplastic composition may comprise *other flame retardant compounds or flame retardant synergists* to further enhance the flame retardant properties of the thermoplastic composition (emphasis added). Ans. 3; Schmidt 14. As also noted by the Examiner, Schmidt further discloses that *any flame retardant compound, including those that are halogen free, suitable for use in thermoplastic elastomers may be used* (emphasis added). Ans. 3; Schmidt 14. The Examiner found Karayianni and Freitag disclose the use of phosphinate salts and polyphosphonates, respectively, as flame retardant compounds for a polymeric thermoplastic

elastomer composition. Non-Final Act. 3–4; Karayianni ¶¶ 4, 10, 22, 35; Freitag Abstract, ¶¶ 6, 57. Appellants have not disputed these findings by the Examiner. *See* Appeal Brief, *generally*. Thus, Appellants have not identified reversible error in the Examiner’s determination that it would have been obvious to combine the flame retardant compounds of Karayianni and Freitag with Schmidt’s nitrogen containing flame retardant, all known as flame retardant compounds for thermoplastic elastomers, with the expectation that the thermoplastic elastomer composition of Schmidt would have good flame retarding properties. Non-Final Act. 4; Ans. 2–3; Schmidt 2; Karayianni ¶¶ 4, 10, 22, 35; Freitag Abstract, ¶¶ 6, 57. *See also In re Kerkhoven*, 626 F.2d 846, 850 (CCPA 1980).

While Appellants argue that combining the minimum amount of Schmidt’s nitrogen-containing flame retardant (7.5 wt. %) and the claimed minimum amount of phosphinate salt (5 wt. %) would exceed maximum total amount of 9 wt. % calculated by the Examiner for the halogen-free flame retardant without the inclusion of phosphonates, we agree with the Examiner’s determination that the amount of the nitrogen containing flame retardant is not recited in claim 1. App. Br. 9; Ans. 4. Moreover, we note that Appellants’ dependent claim 2 makes it clear that the presence of any nitrogen containing flame retardant (melamine) is in addition to the presence of other halogen-free flame retardants.

Appellants additionally argue the claimed compositions exhibit unexpectedly improved properties, such as improved flame retardancy while the physical properties of the base polyester elastomer are maintained. App. Br. 9–12. Appellants rely on data presented in examples in the Specification

as providing sufficient evidence of unexpected results to rebut any prima facie case for obviousness. App. Br. 12; Spec. ¶¶ 63–70.

We have considered Appellants' proffered evidence and agree with the Examiner's determination that the data are not commensurate in scope with that of the claimed invention. Ans. 4–5. We also note that all of the data presented in the Specification are based on a single phosphinate salt (aluminum diethylphosphinate) and two phosphonate components (FRX-100 and FRX-Co85). Spec. ¶ 63. In addition, Appellants' data only test three thermoplastic polyester elastomers (Hytrel® 4056, Riteflex® 440 and Riteflex® 655). *Id.* Appellants do not explain why these limited tested compounds are representative of the entire scope of compounds encompassed by the claims. As also noted by the Examiner, the data for polymer RF-440 principally relied upon by Appellants only test phosphinate salt amounts of 20–25 wt. %. Spec. ¶ 69 (Examples 2, 4, 5, 9, 10); App. Br. 11; Ans. 4–5. Appellants have not adequately explained why these tested amounts are representative of the entire scope of 5 to 25 wt. % of phosphinate salt recited in claim 1. Ans. 4–5.

On this record, Appellants have not adequately shown, much less explained, why the evidence relied upon would have been unexpected by one of ordinary skill in the art or is reasonably commensurate in the scope with the claims.

For the reasons stated above, we affirm the Examiner's prior art rejection of claims 1–8 under 35 U.S.C. § 103(a).

Rejection II

The Examiner provisionally rejected claims 1–8 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–14 of copending Application No. 12/920,917. Non-Final Act. 6. Appellants request withdrawal of this rejection by asserting that the pending claims are in condition for allowance because Rejection I was overcome by the arguments and evidence presented. App. Br. 12–13. As discussed above, we sustain the § 103(a) rejection.

Since Appellants have not identified reversible error in the Examiner’s provisional obviousness-type double patenting rejection (*id.*), we AFFIRM this rejection for the reasons presented by the Examiner and given above.

ORDER

The Examiner’s prior rejection under 35 U.S.C. § 103(a) is affirmed.

The Examiner’s rejection on the ground of nonstatutory obviousness-type double patenting is affirmed.

TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

AFFIRMED